

APPENDIX A

The following example of some of the contents of an XML document illustrates an example embodiment of the view definitions document 132 (Figure 1) which provides a master view, task definitions, use cases, and view definitions similar to those previously explained. This XML sample is shown by way of example only and portions of this document have been removed in order to show only some example of XML that can operate according to the techniques explained above.

```

10 <data-dict>
    <!--
    This is the view section of the data dictionary. It describes the task groups, tasks,
    use cases (how managed object types are sent to view panels) and view panels.
    All "name" attribute are system names not shown to the user.
15    To add a new view, you must add a task tag with it's associated usecases and have the
    usecases name a view name and add a view tag (further down) for the view.
    The first appearance of each tag is commented.
    -->
    <section name="views">
        <!-- First, the task section which describes all the tasks-->
        <tasks>
            <!--
            The groups are the group button names that task buttons are part of.
            -->
25        <groups>
            <!--
            name is the system name for the task
            -->
            <group name="Monitoring"/>
            <group name="Storage Allocation"/>
            <group name="Administration"/>
            <group name="Performance Mgt."/>
            <group name="Data Protection"/>
            </groups>
35        <!--
        The tasks are part of a task group and appear as a button the user clicks
        on to set the task for the target panel.
        -->
        <task name="Free Space">
40            <!--
            What group does this task belong to?
            -->
            <group name="Storage Allocation"/>
            <!--
45            Describes the button for this task.
            name = system name for the button, not shown to the user
            text = the text of the button shown to the user. The data dictionary
            may internationalize this name during the creation of the data dictionary

```

by merging files from other languages and replacing this text.

icon - the name of a static filed of icon.

disabled = whether or not this button is enabled or disabled, false by default.

the buttons should only be enabled in the main (rambint) branch of the code if the button is ready to send to QA

-->

```
<button name="Free Space" text="Free Space" icon="Indx_16x16_FreeSpace"
      iconid="72" action-command="ActionCommand" color="656522" />
```

<!--

The usecases determine which mo types get shown in which view(s) when a target panel has this task set on it. MO = Managed object. When MOs are selected in the tree the target panel gets passed the MOs (or when MOs get sent to a panel view drag and drop), each MO is matched against the mo type for each use cases of the task. If the motype of a selected mo matches the motype of a use case, then the MO is put into the view named by the view name of the use case.

If the mo does not match a use case, the following use case is checked for a match. By default, once an MO is matched to one use case, then evaluation of the use cases for that mo stops. This can be overridden by adding 'evalFollowingUseCases="true"' to the attribute of the motype tag(s). Note that this means the by default, the order of use cases matter. Typically, classes lower in the object hierarchy are specified closer to the top of the use case list.

A match is made if the selected mo type is an instance of the mo type in the use case (thus, if a selected MO's type is a subclass of the usecase's motype then a match will be made). todo - implement is-Dendant=false to override this behavior. Specific subclasses can be excluded from being match be including an <exclude class="..."> tag under the motype tag. See below for more on exclusion.

GroupMO's are treated specially by the application. When a group mo is selected, typically the underlying MOs are "virtually" selected. If a task has a use case matching the group type, then the children of the mo type will not be selected, only the GroupMO will be sent to the view. If the task desires that the GroupMO and it's children be sent to the view, it should add a 'selectChildren="true"' attribute to the groupmo's motype tag.

If a task wants all the mos to be sent to a particular view, it will want to specify a motype tag with a class of com.emc.ecc.client.common.objmodel.base.BaseMO, and include a sub-tag with a class of com.emc.ecc.client.common.objmodel.base.GroupMO. This will match all the MOs selected except for the GroupMO, allowing the behavior of a group click to effectively select all the children of the group.

-->

```
<usecases>
```

```
  <!-- one in an ordered list of use cases -->
```

```
  <case name="All">
```

```
    <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
```

```
      <exclude
```

```
        class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
```

```
    </motype>
```

```
    <view name="Free Space"/>
```

```
  </case>
```

```
</usecases>
```

```
</task>
```

```
<task name="Path Details">
```

```
  <group name="Storage Allocation"/>
```

```
  <button name="Path Details" text="Path Details" icon="Indx_16x16_PathDetails"
```

```

        iconid="73" action-command="ActionCommand" color="397290" />
    <usecases>
        <case name="All">
            <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
5              <exclude
              class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
            </motype>
            <view name="Path Details"/>
        </case>
10      </usecases>
    </taskbar>
</task>

    <task name="Connectivity">
15      <taskbar>
        <group name="Storage Allocation"/>
        <button name="Connectivity" text="Connectivity" icon="Indx_16x16_Connectivity"
        iconid="74" action-command="ActionCommand"
        color="C09987" />
20      <usecases>
        <case name="All">
            <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
            <exclude
25      class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
            </motype>
            <view name="Connectivity"/>
        </case>
        </usecases>
    </taskbar>
30  </task>
<!--
    <task name="Accessibility">
        <taskbar>
            <group name="Storage Allocation"/>
            <button name="Accessibility" text="Accessibility" icon="Indx_16x16_Accessibility"
35      iconid="74" action-command="ActionCommand"
            color="00FF00" />
            <usecases>
            <case name="All">
                <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
                <exclude
40      class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
                </motype>
                <view name="Accessibility"/>
            </case>
            </usecases>
45      </taskbar>
    </task>
-->
50  <task name="At A Glance">
    <taskbar>
        <group name="Monitoring"/>
        <button name="At A Glance" text="At A Glance" icon="Indx_16x16_AtAGlance"
        color="4E4C89" />

```

```

    <usecases>
      <case name="All">
        <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
          <exclude
5      class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
          </motype>
          <view name="At A Glance"/>
        </case>
      </usecases>
10    </taskbar>
    </task>
    <task name="Topology">
      <taskbar>
        <group name="Monitoring"/>
        <button name="Topology" text="Topology" icon="Indx_16x16_Topology"
15      disabled="true"
          color="CEA070" />
      <usecases>
        <case name="All">
          <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
            <exclude
20      class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
            </motype>
            <view name="Topology"/>
          </case>
        </usecases>
      </taskbar>
    </task>
    <task name="Command History">
      <taskbar>
        <group name="Monitoring"/>
        <button name="Command History" text="Command History"
25      icon="Indx_16x16_CommandHistory"
          color="367872" />
      <usecases>
        <case name="All">
          <motype class="com.emc.ecc.client.common.objmodel.base.BaseMO">
            <exclude
30      class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
            </motype>
            <view name="Command History"/>
          </case>
        </usecases>
      </taskbar>
    </task>
    <task name="Physical Display">
      <taskbar>
        <group name="Monitoring"/>
        <button name="Physical Display" text="Physical Display"
35      icon="Indx_16x16_Timefinder"
          color="1E8B96" />
      <usecases>
        <case name="Symmetrix">
40
45
50

```

```

        <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymmetrixMO"/>
        <view name="SymPhysicalView"/>
        </case>
5        <case name="SymBackEndDirector">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymBackEndDirectorMO"/>
            <view name="SymPhysicalView"/>
            </case>
10        <case name="SymFrontEndDirector">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymFrontEndDirectorMO"/>
            <view name="SymPhysicalView"/>
            </case>
15        <case name="SymPhysicalDisk">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymPhysicalDiskMO"/>
            <view name="SymPhysicalView"/>
            </case>
20        <case name="SymDevice">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymDeviceMO"/>
            <view name="SymPhysicalView"/>
            </case>
25        <case name="SymHyper">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymHyperMO"/>
            <view name="SymPhysicalView" />
            </case>
30        <case name="SymPort">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymPortMO"/>
            <view name="SymPhysicalView" />
            </case>
35        <case name="SymRdfDirector">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymRdfDirectorMO"/>
            <view name="SymPhysicalView" />
            </case>
40        <case name="SymRAGroup">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymRAGroupMO"/>
            <view name="SymPhysicalView" />
            </case>
45        </usecases>
        </taskbar>
    </task>
    <task name="Visual Storage">
        <taskbar>
50        <group name="Monitoring"/>
        <button name="Visual Storage" text="Visual Storage"
icon="Indx_16x16_VisualSymmetrix"
        color="A7965C" />
        </taskbar>
    </task>
</usecases>

```

```

        <case name="Symmetrix">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymmetrixMO"/>
            <view name="VisualSymmView"/>
5        </case>
        <case name="SymDevice">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymDeviceMO"/>
            <view name="VisualSymmView"/>
10        </case>
        <case name="SymHyper">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymHyperMO"/>
            <view name="VisualSymmView"/>
15        </case>
        <case name="SymFrontEndDirector">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymFrontEndDirectorMO"/>
            <view name="VisualSymmView"/>
20        </case>
        <case name="SymFrontEndPort">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymFrontEndPortMO"/>
            <view name="VisualSymmView"/>
25        </case>
        <case name="SymBackEndDirector">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymBackEndDirectorMO"/>
            <view name="VisualSymmView"/>
30        </case>
        <case name="SymBackEndPort">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymBackEndPortMO"/>
            <view name="VisualSymmView"/>
35        </case>
        <case name="SymPhysicalDisk">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymPhysicalDiskMO"/>
            <view name="VisualSymmView"/>
40        </case>
        <case name="SymPhysicalDisk">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymPhysicalDiskMO"/>
            <view name="VisualSymmView"/>
45        </case>
        <case name="HostDevice">
            <motype
class="com.emc.ecc.client.common.objmodel.host.HostDeviceMO"/>
            <view name="VisualSymmView"/>
50        </case>
        <case name="ApiDevGroupMember">
            <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.ApiDevGroupMemberMO"/>

```

```

        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="ApiDevsGroup">
        <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.ApiDevsGroupMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="HostMO">
        <motype class="com.emc.ecc.client.common.objmodel.host.HostMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="FileSystemMO">
        <motype
class="com.emc.ecc.client.common.objmodel.host.FileSystemMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="DatabaseMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DatabaseMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="DbInstanceMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DbInstanceMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="DbTablespaceMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DbTablespaceMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
    </case>
    <case name="DbFileMO">

```

```

        <motype
class="com.emc.ecc.client.common.objmodel.database.DbFileMO">
        <exclude
5 class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
        </case>
        <case name="LogicalVolumeMO">
        <motype
10 class="com.emc.ecc.client.common.objmodel.host.LogicalVolumeMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
15 </case>
        <case name="VolumeGroupMO">
        <motype
class="com.emc.ecc.client.common.objmodel.host.VolumeGroupMO">
        <exclude
20 class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="VisualSymmView"/>
        </case>
        </usecases>
25 </taskbar>
</task>
<task name="Mirror QOS">
<taskbar>
<group name="Performance Mgt."/>
30 <button name="Mirror QOS" text="Mirror QOS" icon="Indx_16x16_QOS"
color="78895C" />
<usecases>
<case name="SymDevice">
<motype
35 class="com.emc.ecc.client.common.objmodel.symmetrix.SymDeviceMO" or-Decendant="true"/>
<view name="Mirror QOS"/>
</case>
<case name="HostMO">
<motype class="com.emc.ecc.client.common.objmodel.host.HostMO">
40 <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
</motype>
<view name="Mirror QOS"/>
</case>
45 <case name="HostDeviceMO">
<motype
class="com.emc.ecc.client.common.objmodel.host.HostDeviceMO">
<exclude
50 class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
</motype>
<view name="Mirror QOS"/>
</case>
<case name="SymPhysicalDiskMO">

```



```

        <motype
class="com.emc.ecc.client.common.objmodel.symmetrix.SymPhysicalDiskMO">
        <exclude
5 class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="Mirror QOS"/>
        </case>
        <case name="FileSystemMO">
        <motype
10 class="com.emc.ecc.client.common.objmodel.host.FileSystemMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="Mirror QOS"/>
15 </case>
        <case name="DatabaseMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DatabaseMO">
        <exclude
20 class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="Mirror QOS"/>
        </case>
        <case name="DbInstanceMO">
25 <motype
class="com.emc.ecc.client.common.objmodel.database.DbInstanceMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
30 <view name="Mirror QOS"/>
        </case>
        <case name="DbTablespaceMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DbTablespaceMO">
35 <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="Mirror QOS"/>
        </case>
40 <case name="DbFileMO">
        <motype
class="com.emc.ecc.client.common.objmodel.database.DbFileMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
45 </motype>
        <view name="Mirror QOS"/>
        </case>
        <case name="LogicalVolumeMO">
        <motype
50 class="com.emc.ecc.client.common.objmodel.host.LogicalVolumeMO">
        <exclude
class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
        </motype>
        <view name="Mirror QOS"/>

```

```

        </case>
        <case name="VolumeGroupMO">
            <motype
5      class="com.emc.ecc.client.common.objmodel.host.VolumeGroupMO">
              <exclude
            class="com.emc.ecc.client.common.objmodel.base.GroupMO"/>
              </motype>
            <view name="Mirror QOS"/>
        </case>
10    </usecases>
    </taskbar>
  </task>
</tasks>
<!--

```

15 This part of the view definitions document holds the view names and descriptions. For a view to be used, it must be pointed to by a task's use case above.

```

-->
<views>
  <!-- The view tag describes a view panel that resides in a target panel. It points
20  (explicitly or implicitly) to an view that the view generator can create when needed.
    name - the system name of the view, must be pointed to by a task use case, must be
unique, system-wide title - the text that by default shows in the title bar of the view's panel.

```

Also see the more descriptive view tags below.

```

-->
  <view name="SymBackEndPortDetailsGenerated" format="generated" type="table"
25  title="Back End Ports" >
    <!--

```

30 A view object is either the MO or an object that is retrieved from a MO whose attributes are used to populate the view with data.

name = "MO" must always be the first view object. It is the MO passed to the view. If the MO doesn't have methods called on it directly (except getManagedObject()), then the type can be BaseMO and doesn't have to be a more specific type.

35 "manObj" must always be the second view object. It's type should be the type returned by getManagedObject on the MO. Other arbitrary names can be used for other view objects. These are used to get other objects out of the managed object that will have attributes shown in the view.

type - if the type used to look up the attributes and style in the object section of the XML.

40 sourceObject - must be the name matching a viewobject defined above the tag in which it is used. The source object is where the view object comes from. The sourceObject for manObj is implied to be "MO".

sourceObjectAttribute - must be the name matching an attribute of the sourceObject. This is the method called on the the source object to get this view object. The sourceObjectAttribute for manObj is implied to be "ManagedObject". Typically you can imagine "get" in front of the name. The attributes are defined in the objects.xml for the object.

class - if the viewobject doesn't have meta-data (is not part of objects.xml), then a class must be defined instead of a type.

```

-->
50  <!--
    The view object that is the MO itself. If the MO is only used to get the
ManagedObject,
    don't specify the MO.
-->

```

```

<viewobject name="MO" type="BaseMO"/>
<!--
  not nec for this view - the MO is not used except to get the ManagedObject
  but if a MO method was used directly, then each methods used would need a
5 javadoc    @presentation flag in them. A javadoclet we will develop will add XML to the object
              section of the data dictionary for each presentation method. The mo itself would
              then have to be specified as follows:
              viewobject name="MO" class="com.emc.ecc.client.common.SymScsiDirectorMO"
10    -->
    <!-- The view object that is the Managed Object gotten directly from the MO.
        If the object is in the object section of the XML, type is used, otherwise, class is
        used. -->
    <viewobject name="manObj" type="SymBackEndPort"/>
15    <!-- An example view object that is retrieved from the managed object. Note if
        sourceObject is in the data dictionary, "sourceObjectAttribute" is used otherwise
        "sourceObjectMethod" is used. -->
    <viewobject name="symDirector" type="SymDirector" sourceObject="manObj"
        sourceObjectAttribute="Director"/>
20    <viewobject name="symmetrix" type="Symmetrix" sourceObject="symDirector"
        sourceObjectAttribute="Symmetrix"/>
    <!-- A view object not in the data dictionary that is retrieved from the managed object.
        Note: class, not type is used since it is not in the data dictionary.
        If another view object uses this as a source object, sourceObjectMethod must be
        used instead of sourceObjectAttribute -->
25    <viewobject name="disks" class="java.util.Collection" sourceObject="manObj"
        sourceObjectAttribute="Disks"/>
    <!-- This tag describes the type of view, only table tags are defined at this time.-->
    <table>
30        <!-- Column Descriptions -->
        <!-- Column from a derived view object from a derived view object-->
        <column name="Symmetrix" header="Symmetrix" viewObject="symmetrix"
            valueAttribute="serialNumber"
            cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
35        <!-- Column from a derived view object -->
        <column name="Director" header="Director" viewObject="symDirector"
            valueAttribute="adapterName"
            cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
        <!-- Column straight from the managed object -->
40        <column name="Interface" header="Interface" viewObject="manObj"
            valueAttribute="portNumber"
            cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
        <!-- Column from the managed object, uses an enum value.
            Note: For a no-op (just put the viewobject itself in the table), don't specify any
            method or valueAttribute. -->
45        <column name="Status" header="Status" viewObject="manObj"
            valueAttribute="dirPortStatus"
            cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
        <!-- Column from the "disks" viewobject. This column (size on a collection) is not in
50        the object section of the dd,
            so the "valueMethod" attribute is used instead of "valueAttribute", also the header
            and style are specified here.
            Note: For a no-op (just put the viewobject itself in the table), don't specify any
            method or valueAttribute. -->

```

```

        <column name="NumTargets" header="# Targets" viewObject="disks"
method="size" style="default"
cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
        <!-- Column described by code in the view component itself. The default style of the
5 Java return type is used. -->
        <column name="NumHypers" header="# Hypers" viewObject="manObj"
valueAttribute="NumHypers" style="default"
cellRenderer="com.klg.jclass.cell.renderers.JCStringCellRenderer"/>
10    </table>
    </view>
    <view name="SymFibrePortDetails" type="table" title="Fibre Ports" format="component">
        <component
class="com.emc.ecc.client.plugins.symmgr.config.views.SymmFibrePortView"/>
        <table>
15            <column name="Symmetrix" header="Symmetrix"
                sort="1"
                sortDirection="ascending"
                merge="true"/>
                <column name="Director" header="Director"
20                    sort="2"

comparator="com.emc.ecc.client.common.objmodel.symmetrix.DirectorNameComparator"
                merge="true"/>
                <column name="Port" header="Port"
25                    sort="3"/>
                <column name="Status" header="Status"/>
                <column name="NumDevices" header="# Devices"/>
                <column name="WWN" header="WWN"/>
        </table>
30    </view>
    <view name="SymFrontEndPortDetails" title="Front End Ports" format="component">
        <component
class="com.emc.ecc.client.plugins.symmgr.config.views.SymmFrontEndPortView"/>
    </view>
35    <view name="SymDeviceDetails" title="Devices" filterable="yes" format="component">
        <component
class="com.emc.ecc.client.plugins.symmgr.config.views.SymmDeviceView"/>
        <viewobject name="MO" type="BaseMO"/>
        <viewobject name="manObj" type="SymDevice"/>
40    <table>
        <column name="Symmetrix"
                header="Symmetrix"
                sort="1"
                merge="true"/>
45    <column name="Name" header="Name"/>
        <column name="Device ID" header="Device ID"
                sort="2"/>
        <column name="Label" header="Label"/>
        <column name="Status" header="Status"/>
50    <column name="Service State" header="Service State"/>
        <column name="Director"
                header="Director"
                sort="3"

```

```

comparator="com.emc.ecc.client.common.objmodel.symmetrix.DirectorNameComparator"
    merge="true"/>
    <column name="Port"
5      header="Port #"
      sort="4"/>
    <column name="VBus" header="VBus"/>
    <column name="Target ID" header="Target ID"/>
    <column name="LUN" header="LUN"/>
10    <column name="ESCON Address" header="ESCON Address"/>
    <column name="Emulation" header="Emulation"/>
    <column name="Size" header="Size"/>
    <column name="Configuration" header="Configuration"/>
    <column name="RA Groups" header="RA Groups"/>
15    <column name="Meta" header="Meta"/>
    <column name="Stripe Size" header="Stripe Size"/>
    <column name="Meta Members" header="Meta Members"/>
    <column name="Meta Size" header="Meta Size"/>
    <column name="Back-end Distribution" header="Back-end Distribution"/>
20  </table>
  </view>
  <view name="AdminRptDefinitionsDetails" type="table" title="Report Definitions"
format="component">
    <component
25    class="com.emc.ecc.client.admin.views.AdminRptDefinitionsDetailsView"/>
    <table>
      <column name="Name" header="Name" sort="1" sortDirection="ascending"
merge="true"/>
      <column name="O/S Version" header="O/S Version" merge="true"/>
30    </table>
  </view>

  <view name="AdminReportsDetails" type="table" title="Reports" format="component">
35    <component class="com.emc.ecc.client.admin.views.AdminReportsDetailsView"/>
    <table>
      <column name="Host Name" header="Host Name" sort="1"
sortDirection="ascending" merge="true"/>
      <column name="O/S Name" header="O/S Name" merge="true"/>
40    </table>
  </view>

  <view name="AdminAutofixesDetails" type="table" title="Auto Fixes"
format="component">
45    <component class="com.emc.ecc.client.admin.views.AdminAutofixesDetailsView"/>
    <table>
50    <column name="Agent Name"
      header="Agent Name"
      sort="1"
      sortDirection="ascending"
      merge="true"/>

```

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        <column name="Auto Fix"
        header="Auto Fix"

5         merge="true"/>
        <column name="Type"
        header="Type"

        merge="true"/>
10    <column name="Command"
        header="Command"

        merge="true"/>
    </table>

15 </view>
    <view name="AdminHostsDetails" type="table" title="Hosts" format="component">
        <component class="com.emc.ecc.client.admin.views.AdminHostsDetailsView"/>
        <table>
            <column name="Host Name" header="Host Name" sort="1"
20 sortDirection="ascending" merge="true"/>
            <column name="O/S Name" header="O/S Name" merge="true"/>
            <column name="O/S Version" header="O/S Version" merge="true"/>
            <column name="O/S Release" header="O/S Release" merge="true"/>
            <column name="O/S Level" header="O/S Level" merge="true"/>
25 <column name="O/S Type" header="O/S Type" merge="true"/>
        </table>

        </view>
    <view name="AdminProductsDetails" type="table" title="Products" format="component">
30 <component class="com.emc.ecc.client.admin.views.AdminProductsDetailsView"/>
        <table>
            <column name="Name" header="Name" sort="1" sortDirection="ascending"
            merge="true"/>
            <column name="O/S Name" header="O/S Name" merge="true"/>
35 <column name="O/S Version" header="O/S Version" merge="true"/>
            <column name="O/S Type" header="O/S Type" merge="true"/>
        </table>

        </view>
40 <!-- END ESN/topology views -->
    </views>
</section>
</data-dict>

```

45 END OF APPENDIX A

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☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

Pages 33-46 of the specification are appendix.

❑ *Scanned copy is best available.*